

\* SWBAT explain how temperature relates to size and molecule motion

Sep 6-2:31 PM

# Welcome!!!

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WBL ALC Physics  
Wednesday 18 December 2013

- \* Sign in
- \* Pick up:
  - worksheet
  - slip of paper (for later)

Opening question: **Worksheet**

New unit: Heat and Temperature

Let me know what you already know...

Sep 7-7:04 AM

Eureka 19

[http://www.youtube.com/watch?v=17w\\_Qv5\\_h4c](http://www.youtube.com/watch?v=17w_Qv5_h4c)

Heating metal ball...

↳ GOT BIGGER  
COOLED IT & IT SHRANK!

[http://www.youtube.com/watch?v=r1p9\\_jbT864](http://www.youtube.com/watch?v=r1p9_jbT864)Balloons in  
the cold!<http://www.youtube.com/watch?v=fxtu-rTHgqQ><http://phet.colorado.edu/en/simulation/gas-properties>

A way of thinking about temperature...

HEAT  $\Rightarrow$  ENERGY  
OF MOLECULES  
KINETIC ENERGY

ALL THE SAME SPEED? NO

ADD HEAT  $\Rightarrow$  GOT FASTER, BUT SOME STILL SLOWTEMP  $\Rightarrow$  HOW FAST ON AVERAGE

Dec 14-7:13 AM

## Daily 3 Questions

- \* Every day except test/project days
- \* 3 Questions on the topics of the day
- \* Main source of daily points
- \* I am happy to give credit when I have no concerns about someone giving or getting help with the answers.

CP homework: What is one other  
example of warm things expanding  
or cooler things shrinking?

Your can't get your points if you don't have your NAME!!!

Name

Period

1.

2.

3.

Sep 9-7:32 AM

1. When we raised the temperature of the metal ball, what happened to its size?

- ☒ A. got bigger
- ☐ B. didn't change size
- ☐ C. got smaller

2. When balloon went outside in the cold, what happened to the size of the air inside it?

- ☐ A. got bigger
- ☐ B. didn't change size
- ☒ C. got smaller

3. This is because higher temperature means the molecules are

- ☐ A. moving slower on average
- ☐ B. moving the same on average
- ☒ C. moving faster on average

Dec 2-7:55 AM